Book Reviews

V. L. TONG, *Probability Inequalities in Multivariate Distributions*, Academic Press, 1980, 238 pp.

V. L. FORTET, *Elements of Probability Theory*, Gordon & Breach, 1977, 524 pp.

S. KARLIN AND H. M. TAYLOR, *A Second Course in Stochastic Processes*, Academic Press, 1981, 542 pp.

A. ARAUJO AND E. GINE, *The Central Limit Theorem for Real and Banach Valued Random Variables*, Wiley, 1980, 233 pp.

M. F. NEUTS, *Matrix–Geometric Solutions in Stochastic Models*, Johns Hopkins Press, 1981, 332 pp.

B. JØRGENSEN, *Statistical Properties of the Generalized Inverse Gaussian Distribution*, Springer, 1982, 188 pp.

W. HAZOD, *Stetige Faltungshalbgruppen von Wahrscheinlictkeitsraumen und erzeugende Distributionen*, Springer, 1977, 157 pp.

M. CARMELI, *Classifying Infinitely Divisible Distributions by Functional Equations*, Mathematisch Centrum, 1978, 194 pp.

C. W. GARDINER, *Handbook of Stochastic Methods*, Springer, 1983, 442 pp.

G. F. VAN DER HOEVEN, *Projections of Lawless Sequences*, Mathematisch Centrum, 1982, 237 pp.

In the world of probability, good exposition is a tradition that is not only keeping the field alive, but making the results of recent research available to scientists in the manifold disciplines that depend on probability for their livelihood. How we wish we could say the same of topology (say)! (When will topologists wake up to the harsh realities of the eighties?)

In the much-awaited second volume of Karlin and Taylor, the student can find a clear and thorough introduction to all current areas of interest. The treatment of stochastic differential equations—a difficult subject to break into, but the center stage of today's probabilistic mathematics—is particularly lucid and thorough, perhaps the best introduction now available.

Gardiner, on the other hand, has taken the bold and unusual step of breaking barriers between different approaches. In his book the quantum and the classical appear side-by-side, and phase–plane analysis is not disdained in explaining stochastic phenomena that after all do resemble dynamical systems. This book will do a lot to bring mathematicians closer to physicists, chemists, and engineers.

Fortet's treatise remains an old standby, sustained by the strong backbone of a conservative approach to probability, to which we all turn when all else fails.

0001-8708/85 $7.50